



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,649	12/29/2000	Peter Yongchun Liu	4906P019	1499
7590	05/12/2004		EXAMINER	
Daniel M. DeVos BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP Seventh Floor 12400 Wilshire Boulevard Los Angeles, CA 90025-1026			MACE, BRAD THOMAS	
			ART UNIT	PAPER NUMBER
			2663	6
DATE MAILED: 05/12/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/752,649	LIU, PETER YONGCHUN 	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brad T. Mace	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_;
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 9-15 and 17-19 is/are allowed.
- 6) Claim(s) 1, 5, and 16 is/are rejected.
- 7) Claim(s) 2-4 and 6-8 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 December 2000 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: reference 350 of figure 3. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Specification*

2. The disclosure is objected to because of the following informalities: the word "are" should be "art" on line 13 of pg. 9. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,195,335 ("Calvignac et al.") in view of the admitted prior art

#### Regarding claims 1 and 5:

Calvignac et al. teaches a packet data switch (network element) comprising of a plurality of sets of data input lines and a switch fabric (cross-connect); see Figure 1. The switch fabric (cross-connect) has a matrix structure, where the matrix is coupled to

every set of data input lines and having a set of data output lines; see Figure 1 (a plurality of matrix structures can be inferred for use). There are also adapters containing FIFO queues (inferring possible buffer use if so desired in its place) for storing data packets while they are waiting to be transmitted; col 3., lines 18-22. However, Calvignac et al. does not teach that the data input lines are to be coupled to a different line card and that each set of data input lines of each of the plurality of matrices are to be coupled to a different one of the line cards.

The admitted prior art discloses that a typical TDM network element includes a number of line cards; line 20, pg. 1. The line cards are coupled to a cross-connect (inferring through data lines) that allows for traffic to be selectively transmitted from any of the line cards to any of the other line cards (inferring through the matrices); lines 21-23, pg. 1.

A person of ordinary skill in the art would have been motivated to employ the admitted prior art in Calvignac et al. in order to obtain a switching fabric (cross-connect) that uses line cards. The suggestion/motivation to employ the admitted prior art in Calvignac et al. would have been to allow data to enter and exit from a network and to allow for easier alignment and switching of data through the cross-connect. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine the admitted prior art with Calvignac et al. (collectively "Calvignac et al. – admitted prior art ") to obtain the invention as specified in claim 1 and also in claim 5.

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over "Calvignac et al. – admitted prior art" as applied to claims 1 and 5 above, and further in view of U.S. Patent No. 6,628,650 ("Saito et al.").

Regarding claim 16:

Calvignac et al. – admitted prior art discloses substantially all the claimed invention above. In addition, Calvignac et al. teaches that crosspoint buffers are used for storing at least one data packet; col. 2, lines 23-25. However, Calvignac et al. – admitted prior art does not disclose expressly that the data can be reordered and intermixed. Saito et al. discloses that the data can be reordered and intermixed; see Figure 4 and Figure 1.

A person of ordinary skill in the art would have been motivated to employ Saito et al. in Calvignac et al. – admitted prior art to have a matrix that stores, reorders, and intermixes data. The suggestion/motivation to do so would have been to yield a system that stores data at desired intervals (crosspoints) in order to allow for easier selectivity of reordering and intermixing data. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Saito et al. with Calvignac et al. – admitted prior art (collectively Calvignac et al. – admitted prior art – Saito et al.) to obtain the invention as specified in claim 16.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad T. Mace whose telephone number is (703)-306-

5454. The examiner can normally be reached on M-F, with the exception of every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703)-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btm

Brad T. Mace  
Examiner  
Art Unit 2663

btm

  
CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600